

# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS	
Audicas. Commission En l'On l'Illand	
P.O. Box 1450	
Alexandria, Virginia 22313-1450	
www.uspto.gov	

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/919,302	07/31/2001	John David Sarlay	IEX 2051000	2503
75	7590 11/24/2004		EXAMINER	
DAVID H. JUDSON		STIMPAK, JOHNNA		
15455 DALLAS	S PARKWAY		<u> </u>	
SUITE 600			ART UNIT	PAPER NUMBER
ADDISON, TX 75001			3623	
		DATE MAILED: 11/24/200	4	

Please find below and/or attached an Office communication concerning this application or proceeding.

			_
	Application No.	Applicant(s)	QS
	09/919,302	SARLAY ET AL.	<i>9</i>
Office Action Summary	Examiner	Art Unit	
	Johnna R Stimpak	3623	
The MAILING DATE of this communication appeariod for Reply	opears on the cover sheet with the	correspondence add	ress
A SHORTENED STATUTORY PERIOD FOR REP THE MAILING DATE OF THIS COMMUNICATION  - Extensions of time may be available under the provisions of 37 CFR 1 after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above is less than thirty (30) days, a re - If NO period for reply is specified above, the maximum statutory perior - Failure to reply within the set or extended period for reply will, by statu Any reply received by the Office later than three months after the mail earned patent term adjustment. See 37 CFR 1.704(b).		mely filed ys will be considered timely. the mailing date of this con ED (35 U.S.C. § 133).	nmunication.
Status			
1) Responsive to communication(s) filed on 26.	August 2004.		-
2a) This action is <b>FINAL</b> . 2b) ⊠ Th	is action is non-final.		
3) Since this application is in condition for allow closed in accordance with the practice under			merits is
Disposition of Claims			
4) ☐ Claim(s) 37-51 is/are pending in the applicating 4a) Of the above claim(s) is/are withdrest 5) ☐ Claim(s) is/are allowed.  6) ☐ Claim(s) 37-51 is/are rejected.  7) ☐ Claim(s) is/are objected to.  8) ☐ Claim(s) are subject to restriction and/	awn from consideration.		
Application Papers			
9) The specification is objected to by the Examir	ner.		
10)☐ The drawing(s) filed on is/are: a)☐ ac	cepted or b) objected to by the	Examiner.	
Applicant may not request that any objection to the		` '	
Replacement drawing sheet(s) including the corre	• • • • • • • • • • • • • • • • • • • •	•	• •
Priority under 35 U.S.C. § 119			
12) Acknowledgment is made of a claim for foreign a) All b) Some * c) None of:  1. Certified copies of the priority documer 2. Certified copies of the priority documer 3. Copies of the certified copies of the priority application from the International Bure:  * See the attached detailed Office action for a list	nts have been received. nts have been received in Applicat ority documents have been receiv au (PCT Rule 17.2(a)).	ion No ed in this National S	stage
Attachment(s)			
1) Notice of References Cited (PTO-892)	4) Interview Summary Paper No(s)/Mail D	/ (PTO-413)	
<ol> <li>Notice of Draftsperson's Patent Drawing Review (PTO-948)</li> <li>Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08 Paper No(s)/Mail Date</li> </ol>			152)

Art Unit: 3623

#### **DETAILED ACTION**

1. The following is a non-final office action upon examination of application number 09/919,302. Claims 37-51 are pending and have been examined on the merits discussed below.

## Response to Arguments

2. Applicant's arguments filed August 26, 2004 have been fully considered but they are not persuasive. Applicant first argues that the Pipkins product does not have the specific functionality required by the pending claims – clauses (b)-(c) in claim 37. Examiner notes that clauses (b) and (c) in claim 37 teach forecasting a number of contacts over a time period associated with a service level goal. Firstly the forecast of contacts to handle, is broad, and is interpreted as determining a number of incoming email or calls (contacts). Inherent to the Pipkins system is determining a number of incoming emails or calls in order to schedule staff to meet service level goals by balancing the work to be completed with the resources available in order to avoid overstaffing or understaffing. The Pipkins reference teaches forecasting email management (the number of incoming emails) and customer service representative staffing requirements to meet a given service level according to work volume benchmarks or targets. Also in arguing that the reference does not teach a forecast of contacts to handle, Applicant states that the prior art approach (including that implemented by Pipkins) teaches the well-known process of forecasting calls received to determine staffing schedules. It is not clear where the difference is. Forecasting the calls received would inherently include forecasting the contacts to handle.

Art Unit: 3623

3. Applicant also reiterates that the claimed invention distributes the contact load over a time period to determine how much staff is needed at different times of the day and week. Pipkin's teaches using the historical reporting for staffing. The system balances the burden of work to be completed with the resources available to complete the work without overstaffing or understaffing occurring. Here the work to be completed is the incoming emails which are scheduled (or distributed) to the staff in a way that avoids overstaffing or understaffing. Here, it is inherent that if it is determined that a large volume of emails come in at a certain time of day or week, more people will be staffed to handle the volume.

- 4. As to the Applicant's argument that the January 2000 reference is silent as to any "forecasting" functions, Examiner notes the reference was solely used to show the Pipkins product did exist and was for sale prior to the filing date of this application.
- 5. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., Applicant's reference to paragraph 29 of the description and to table 1) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).
- 6. In light of the above response, prior rejections to the claims are upheld and are reproduced with slight modifications below.

Art Unit: 3623

## Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 8. Claims 37-51 are rejected under 35 U.S.C. 103(a) as being unpatentable by Pipkins' Maxima Advantage incorporating Mustang Reports <sup>TM</sup>, hereinafter referred to as Pipkins.

  Applicant is reminded that the following rejection is based on the product of Pipkins. The following references discuss the following aspects of the Pipkins email management system:

"Mustang.com and Pipkins Join Forces In eService Workforce Management" – December 23, 1999 from Proquest. Reference paragraphs 1-10.

"Pipkins Teams with Mustang.com to Enable Call Center Agents to Integrate Phone Call and Email Functions" – March 16, 2000 from Proquest. Reference paragraphs 11-19.

As per claim 37, Pipkins teaches (a) identifying a given service level goal for a given future time period within the given future time range of the forecast, the service level goal describing a maximum amount of time that may occur between receipt of a given contact and handling of the given contact, wherein the given contact comprises a part of the contact load expected to occur during the given future time period (paragraph 1 – service level goals are set and the email customer service workforce is scheduled to meet the goals so that incoming emails are handled by the staff during their shifts); (b) for the given future time period of the forecast, using the given service level goal identified for that given future time period to identify a number

of time periods over which the contact load in that given future time period may be distributed (paragraph 2 – forecasting is used to predict e-mail management and customer representative staffing requirements) and Pipkins also inherently teaches the steps being performed on an electronic processor since the Pipkins and Mustang systems are computer based. Pipkins teaches scheduling the workforce based on forecasts of email, but does not explicitly teach (c) for the given future time of the forecast, applying a given function to the contact load to distribute the contact load for the given future time period over a given set of the identified number of time periods. Since Pipkins teaches forecasting email over time and scheduling workforce shifts to meet the email demands it would have been obvious to use a function to distribute the email over a time span so the workforce could meet the service goals. This would make for a quicker email response system wherein service goals could be met efficiently.

As per claim 38, Pipkins teaches the contacts that are not required to be serviced by contact center agents in real-time include at least one electronic communication (paragraph 1 teaches contacts to be serviced include electronic mail – which inherently, unlike telephone calls, do not have to be responded to in real-time).

As per claim 39, Pipkins teaches the contacts that are not required to be serviced by contact center agents in real-time include at least one written communication (paragraph 1 teaches contacts to be serviced include electronic mail – which inherently include a written communication and, unlike telephone calls, do not have to be responded to in real-time).

As per claim 40, Pipkins teaches the given function is based on one or more factors selected from a set of factors including: a number of contact center agents expected to be available to service the contacts during the given set of identified number of time periods, an

amount of time that a contact center agent may allocate to service contacts, an amount of excess capacity that a contact center agent has available, a backlog goal, an agent average handling time, and agent schedule adherence (paragraph 7 – balancing the burden of work to be completed with the resources available to complete that work, paragraph 15 – average handling time is used to staff the email reponses).

As per claim 41, Pipkins teaches generating a staffing requirement for the given future time period (paragraph 2 – forecasting is used to predict e-mail customer representative staffing requirements).

As per claim 42, Pipkins does not explicitly teach including the step of repeating steps (a) – (c) on an iterative basis for additional given future time periods within the given future time range to distribute the contact load for each additional given future time period. However, Pipkins teaches an optimization algorithm to forecast and schedule the workforce agents and it is well known to one of ordinary skill in the art that an scheduling optimization algorithm includes many iterations to come up with the optimal solution. The iterations would make the scheduling process be most efficient.

As per claim 43, Pipkins teaches aggregating, with respect to a given future time period, the contact load that has been distributed into that given future time period as a result of applying, on an iterative basis, the given function in steps (a) - (c) (paragraph 15 - the system allows for staffing email response handling more efficiently by knowing the number of emails coming in and the average handling time so that the staffing can be optimized to meet service levels).

Art Unit: 3623

As per claim 44, Pipkins teaches generating a staffing requirement for the given future time period as a function of the aggregate contact load that has been distributed into that given future time period (paragraph 15 – the system allows for staffing email response handling more efficiently by knowing the number of emails coming in and the average handling time so that the staffing can be optimized to meet service levels).

As per claim 45, Pipkins teaches generating a staffing requirement for the given future time period as a function of the aggregate contact load that has been distributed into that given future time period and an agent average handling time that has been forecast for that given future time period (paragraph 15 – the system allows for staffing email response handling more efficiently by knowing the number of emails coming in and the average handling time so that the staffing can be optimized to meet service levels).

As per claim 46, Pipkins teaches (a) identifying a given service level goal for a given future time period within the given future time range of the forecast, the service level goal describing a maximum amount of time that may occur between receipt of a given contact and handling of the given contact, wherein the given contact comprises a part of the contact load expected to occur during the given future time period (paragraph 1 – service level goals are set and the email customer service workforce is scheduled to meet the goals so that incoming emails are handled by the staff during their shifts); (b) for the given future time period of the forecast, using the given service level goal identified for that given future time period to identify a number of time periods over which the contact load in that given future time period may be distributed (paragraph 2 – forecasting is used to predict e-mail customer representative staffing requirements); and (e) Pipkins also inherently teaches the steps being performed on an electronic

processor since the Pipkins and Mustang systems are computer based. Pipkins teaches scheduling the workforce based on forecasts of email, but does not explicitly teach (c) for the given future time of the forecast, applying a given function to the contact load to distribute the contact load for the given future time period over a given set of the identified number of time periods. Since Pipkins teaches forecasting email over time and scheduling workforce to meet the email demands it would have been obvious to use a function to distribute the email over a time span so the workforce could meet the service goals. This would make for a quicker email response system wherein service goals could be met efficiently. Pipkins also does not explicitly teach (d) including the step of repeating steps (a) – (c) on an iterative basis for additional given future time periods within the given future time range to distribute the contact load for each additional given future time period. However, Pipkins teaches an optimization algorithm to forecast and schedule the workforce agents and it is well known to one of ordinary skill in the art that an scheduling optimization algorithm includes many iterations to come up with the optimal solution. The iterations would make the scheduling process be most efficient.

As per claim 47, Pipkins teaches (f) generating a staffing requirement for the given future time period as a function of the aggregate contact load that has been distributed into that given future time period and an agent average handling time that has been forecast for that given future time period (paragraph 15 – the system allows for staffing email response handling more efficiently by knowing the number of emails coming in and the average handling time so that the staffing can be optimized to meet service levels).

As per claim 48, Pipkins teaches the contacts that are not required to be serviced by contact center agents in real-time include contacts selected from a set of contacts that include:

Application/Control Number: 09/919,302

Art Unit: 3623

electronic communications and written communications (paragraph 1 teaches contacts to be serviced include electronic mail – which inherently include a written communication and, unlike telephone calls, do not have to be responded to in real-time).

As per claim 49, Pipkins teaches wherein the electronic communications include at least one e-mail (paragraph 1 teaches contacts to be serviced include electronic mail – which inherently include a written communication and, unlike telephone calls, do not have to be responded to in real-time).

As per claim 50, Pipkins does not explicitly teach the electronic communications include at least one fax. Pipkins does teach scheduling workforce to handle electronic mail responses. It is old and well known to one of ordinary skill in the art that many email systems have faxing capabilities, therefore it would have been obvious to include faxes in the electronic communications to be distributed among the workforce to be sure each gets responded to in the most efficient manner.

As per claim 51, Pipkins teaches the apparatus with code executable on a processor to perform the method of claim 46, therefore the since the references applied to claim 46 teaches a computerized system to perform the method, the same rejection as applied to claim 46 is also applied to claim 51.

### Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Johnna R Stimpak whose telephone number is 703-305-4566. The examiner can normally be reached on M-F 8am-5:30pm.

Art Unit: 3623

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on 703-305-9643. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JS 11/22/2004

> SUSANNA M. DIAZ PRIMARY EXAMINER

A.U.3623